

REMARKS

Applicant's claims have been amended to better clarify Applicants' claimed invention. Independent claims 1, 10, and 19, are amended to recite a first rail system oriented along a first axis direction, i.e. the "X" axis. The written description reads, in pertinent part, "[i]n the embodiment shown in FIG. 1, accessor 18 moves in the +/- X direction." Page 4 at Line 15. Additional support can be found in the written description at FIGs. 1, 3, 4, and 9A through 9F.

Independent claims 1, 10, and 19, are further amended to recite that each accessor includes a running section and a vertical pillar extending outwardly from that carriage along a second axis, i.e. the "Z" axis, such that a lifting servo section can be moved bidirectionally in that second direction along the vertical pillar, where that second axis is perpendicular to the first axis.

The written description expressly incorporates by reference United States Patent No. 5,914,919 regarding the construction and operation of accessor 18. In addition, FIG. 2 of the '919 patent is expressly referenced. "U.S. Pat. No. 5,914,919 describes the construction and operation of accessors such as accessor 18, and is hereby incorporated by reference. FIG. 2 of the '919 patent shows a set of parallel rails as numeral 22." Specification at Page 4 / Lines 18 - 21. The '919 patent describes accessors as follows:

The accessors 16 and 17 are illustrated in greater detail in FIG. 2. The accessors run on the rails 22 along the library aisle by motors 30 in running servo sections 31. A pillar 32 is vertically attached to each of the running sections 31 of the accessors and rides in top rail 34 to provide vertical stability. Robotic manipulators 36 are mounted on lifting servo sections 35 which can move vertically along the pillars 32.

In the embodiment illustrated in FIG. 2, each of robotic manipulators 36 includes as components, two grippers 37 and 38 and a scanner 39.

United States Pat. No. 5,914,919 at page 3 / lines 14 - 25. FIG. 2 of the '919 patent clearly shows pillar 32 oriented in a direction perpendicular to the direction of travel of running section 31 along rail 22.

Independent claims 1, 10, and 19, are further amended to recite a movable rail system comprising a plurality of movable sets of rails, wherein each set of movable rails can be moved bidirectionally along a third axis, wherein said third axis is perpendicular to both said first axis and said third axis. The written description reads, in pertinent part, "[i]n the embodiment shown in FIG. 1, rail systems 20, 22, 24, 26, and 28 are individually movable in the +/- Y direction, which is substantially perpendicular to the +/- X direction." Page 5 / lines 7-9. Further support can be found in FIGs. 1, 2, 3, 4, 7, 8, and 9A through 9F.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claims 1 - 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Motoyama (U.S. Pat. No. 6,022,180) in view of Kanetsuku et al. (U.S. Pat. No. 6,449,223).

Motoyama et al. teach an accessor "which is capable of surely transferring a plurality of types of cartridges (media), thus meeting a variety of needs from the users." Col. 2 / Lines 6-13. Motoyama et al's accessor includes a carriage section, a vertical pillar, and a movable servo section disposed on that vertical pillar. See, Motoyama et al. at FIG. 2.

Motoyama et al. nowhere, however, teach or suggest a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to

the first axis, in combination with a movable rail system comprising a plurality of sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Kanetsuku et al. teach a library apparatus comprising "a storage rack, a deck, and an accessor and is constructed by coupling a plurality of lockers in which a traveling passage for the accessor is formed to penetrate them as well as the first-mentioned library apparatus, wherein sheet metal columns having a standardized structure are set vertically at corner portions of the locks, and a plane reference plate having a vertical surface parallel to the coupling directions of the plurality of lockers . . ." Col. 2 / Line 65 - Col. 3 / Line 4.

Kanetsuku et al., however, nowhere teach or suggest a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Even though the Examiner does not rely on Ostwald et al. (U.S. Pat. No. 6,262,863) in rejecting any of claims 1 through 22, inclusive, the August 27, 2003 Office reads, in part, that "Motoyama et al. and Ostwald et al. are considered to be analogous as they both concern the data media library accessing and storing art." August 27, 2003 Office Action at cipher 3.

Ostwald et al. teaches a "library comprising a two dimensional array that contains media cartridge cells and media cartridge players. A system of rails is used to guide robotic

pods through all of the locations in the array.” Col. 2 / Lines 60 - 64. Ostwald nowhere teaches or suggests teach or suggest a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Quite to the contrary, Ostwald et al. teaches away from Motoyama et al. and from Kanetsuku et al., and from Applicants’ claims 1 through 22, as amended herein. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference . . . would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed.Cir. 1994). Ostwald et al. teaches away from using accessors which include a lifting servo section as recited in Motoyama et al. and in Kanetsuku et al., and in Applicants’ claims.

Ostwald et al., at Col. 2 between lines 6 and 36, teach alleged problems inherent in using a movable “robotic arm” such as the vertical pillar / lifting servo section components of Applicants’ assessor. For example, Ostwald et al. complain that “[t]he typical robotic arm and its supporting structure requires several servo motors to move the robotic arm between positions.” Col. 2 / Lines 22 - 24. Ostwald et al. further complain that “each move of the robotic arm requires a time interval after the mechanism has stopped to bring the servo position into a steady state.” Col. 2 / Line 24 - 26. Further, Ostwald et al. teach “[t]he moving mass of

the robotic arm is much greater than the media cartridge being moved . . . The moving mass of the robotic arm also relates directly to power consumption, which is an important factor in large installations.” Col. 2 / Lines 29-31 and 34 - 36.

In order to eliminate a servo mechanism to move the accessor’s gripper mechanism upwardly and downwardly, Ostwald et al. teach a library wherein “[a] system of rails is used to guide robotic pods through all of the locations in the array . . .” Col. 2 / Lines 63 - 64. Ostwald et al.’s FIG. 1 shows this “system of rails” wherein the horizontal rails 122 - 126 guide Ostwald et al.’s pods 102 horizontally. The movable vertical rail system 132 moves the pods upwardly and downwardly. Thus, Ostwald et al. teach a storage library wherein the entire accessor, rather than only one or more gripper mechanisms, is moved to each storage location and data drive.

One of ordinary skill in the art following the teachings of Ostwald et al. would be motivated to construct a storage library comprising a rail system in combination with one or more accessors, such that each accessor can be positioned immediately in front of each storage slot and storage drive. Thus, Ostwald et al. teach away from Motoyama et al. and Kanetsuku et al. This being the case, Applicants respectfully submit that the Examiner improperly combines the teachings of Ostwald et al. with Motoyama et al. and/or Kanetsuku et al.

Moreover, a person of ordinary skill in the art, however, would not be motivated to construct a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable

rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicants’ claim 1, as amended herein, recites a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al. for that matter, singly or in combination, suggest or teach a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis. This being the case, Applicants respectfully submit that the amendment of claim 1 herein successfully traverses the rejection of claim 1 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et

al., and/or or in view of Ostwald et al.

Claims 2 - 9 depend from claim 1. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 2 - 9, as amended herein, includes all the elements of claim 1, as amended herein. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants' respectfully submit that claim 1, as amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of claims 2 - 9 herein successfully traverse the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Applicants' claim 10, as amended herein, recites a media storage library which includes a first rail system disposed along a first axis, a plurality of accessors which can move bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al., singly or in combination, suggest or teach a media storage library which includes a first rail system

disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis. This being the case, Applicants respectfully submit that the amendment of claim 10 herein successfully traverses the rejection of claim 10 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Claims 11 - 18 depend, directly or indirectly, from claim 10. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 11 - 18, as amended herein, include all the elements of claim 10, as amended herein. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants' respectfully submit that claim 10, as amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of claims 11 - 18 herein successfully traverses the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Applicants' claim 19, as amended herein, recites a media storage library which includes

a first rail system disposed along a first axis, a plurality of accessors which can moved bidirectionally along that first axis, where each accessor includes a movable servo section that can be moved bidirectionally along a second axis, where that second axis is perpendicular to the first axis, in combination with a movable rail system comprising a plurality of movable sets of rails, where each movable set of rails can be moved bidirectionally along a third axis, where that third axis is perpendicular to both the first axis and the second axis.

Neither Motoyama et al., nor Kanetsuku et al., nor Ostwald et al, singly or in combination, suggest or teach a movable rail system in combination with an accessor comprising a vertical pillar, a lifting servo section moveably disposed on that vertical pillar, two robotic manipulators disposed on that lifting servo section, and a scanner disposed on that lifting servo section. This being the case, Applicants respectfully submit that the amendment of claim 19 herein successfully traverses the rejection of claim 19 under 35 USC § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

Claims 20 - 22 depend from claim 19. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." Therefore, claims 20 - 22, as amended herein, include all the elements of claim 19, as amended herein. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988).

For the reasons set forth above, Applicants' respectfully submit that claim 19, as amended herein, is patentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al. This being the case, Applicants respectfully submit that the amendments of

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claims 20 - 22 herein successfully traverse the rejections of those claims under 35 U.S.C. § 103(a) as unpatentable over Motoyama et al. in view of Kanetsuku et al., and/or in view of Ostwald et al.

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Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or additional fees are payable, please charge them, or credit any overpayment, to our Deposit Account No. 502262.

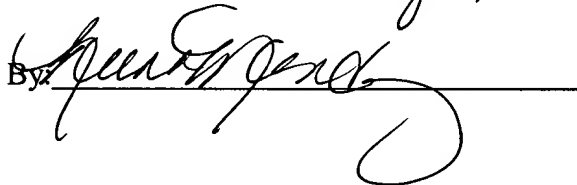
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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on February 27, 2004, at Tucson, AZ.

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